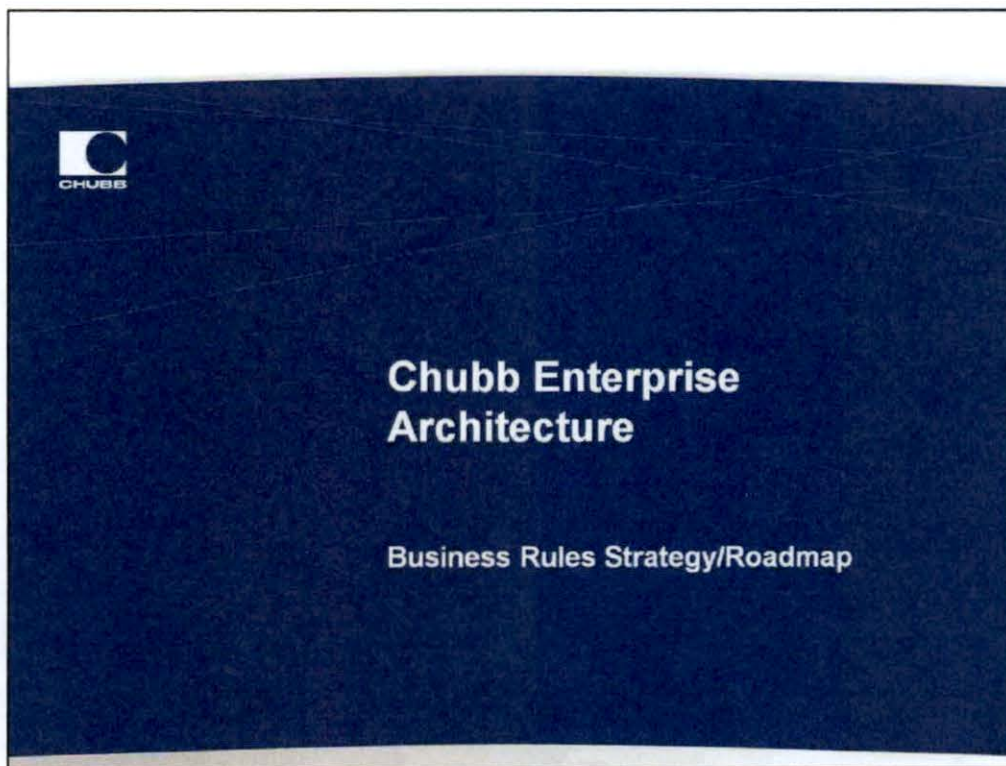


EXHIBIT 48



U.S. DIST COURT – MN
PLAINTIFF EXHIBIT
P-0195

Case No. 16-cv-1054-DTS



Agenda

- Why should we care about business rules
- Reasons for adaptations
- Rule Categorization to Business Capability Mapping
- Business Capa



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Why should we care about business rules

*"Insurance is a **decision business**. Competitive success depends on **making smarter decisions** than the other guy. Traditionally insurers have relied on written procedures, training and hard-coded mainframe programs for consistency, and on actuaries, underwriters and adjusters to make the right decisions. But as **change becomes more frequent** and **decisions more complex**, insurers need a better solution."*

*Donald Light
Senior Analyst Celent
October 2005*



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Decision Management

- What is it ?

- Decision Management (DM) is an **approach** that **automates, improves and connects decisions** across the enterprise.
- Approach — not necessarily only technology, approach encapsulates processes, methodology and internal capabilities
- automates, improves and connects decisions — enables better decisions

- What does it enable ?

- Businesses using DM gain much greater control over the results from high-volume operational decisions. DM aims to increase the precision, consistency and agility of these decisions while reducing the time taken to decide and the cost of the decision.



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Reasons for Adoption






- Reduce the **time and cost** involved in developing decision applications
- Enable decision logic to be **reused** by multiple applications
- Enable advanced decisioning to be **added to legacy systems** as services, minimizing cost and technical risk, leveraging IT investment
- Cut **operational costs and cycle times** through automation
- **Elevate all decision making** to the level of the organization top expert
- **Enforce consistency and compliance** across channels and contact points
- Increase business control and understanding by enabling managers to see in one place all the **rules contributing to a decision**



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What Drives the Business Value?

Decision Management is comprised of five Key Dimensions that drive Decision Yield (Value)

	Precision	Make more profitable and targeted decisions
	Consistency	Ensure coherence across channels, business units and geographies
	Agility	Adapt dynamically to changing conditions
	Speed	Execute decisions faster — even in real time
	Cost	Reduce expenses needed to make decisions. Staff time, exception & investigation handling, etc)

■ Common examples of Decisioning:

- Marketing — offer targeting, product configuration, etc.
- Customer Acquisition — targeted offers, customer sign-up, underwriting, etc.
- Claims Management — claims entry & validation, adjudication, payment, etc.
- Fraud — credit fraud, healthcare fraud, claims fraud, etc.
- Risk management — underwriting, loss exposure, etc.



Bill

Decision Management – Business Capabilities

Rule Categorization – Functional Rules

- | | | |
|---|------------------------------|--|
| 1 | Product definition | ▪ Deals with the initiation, building and integration of new products, and ensures compliance with regulatory requirements |
| 2 | Product configuration | ▪ Enforces strict uniformity in product definitions across the enterprise by providing a pre-configured set of rules and templates |
| 3 | Product inventory management | ▪ Maintains the product portfolio with appropriate versioning to ensure that the right products are launched / retained / retired based on market inputs |
| 4 | Underwriting | ▪ Decides which prospective customers qualify for coverage (and the type of coverage), and quantifies the risk associated with each product |
| 5 | Pricing / Rating | ▪ Calculates the premium, or an intermediate value necessary to determine the overall premium for a policy / quote, based on the rate plan |
| 6 | Bill / Invoicing | ▪ Determines the billing characteristics based on policy characteristics |
| 7 | Claims adjudication | ▪ Determines the amount to be awarded based on claim characteristics |



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Decision Management – Business Capabilities

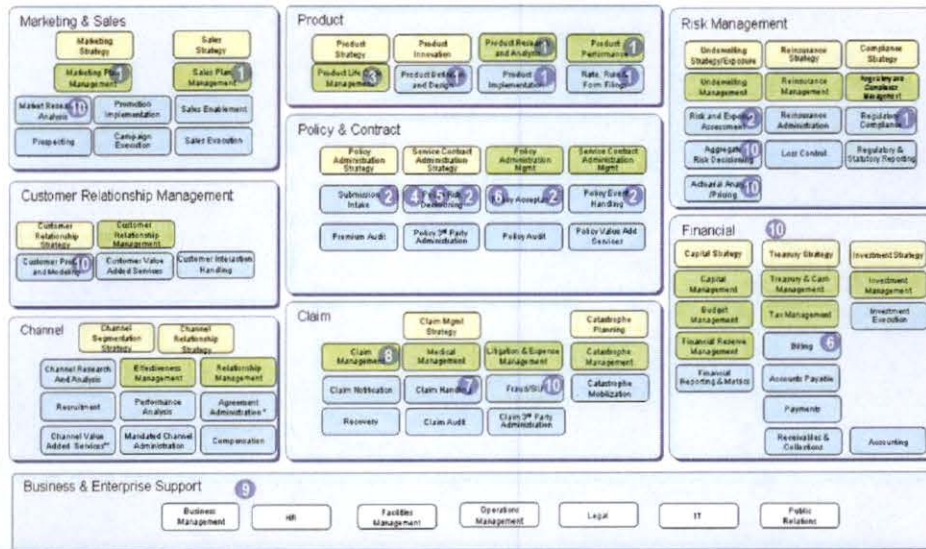
Rule Categorization – Support Rules

- | | | |
|----|---------------------------------------|--|
| 8 | Workflow / routing and orchestration | ▪ Determines the optimal work distribution and routing across the functional areas in the insurance value chain |
| 9 | Front-end helper and input validation | ▪ Facilitates intelligent data collection by ensuring validation at source, and pre-fills data wherever possible, based on user input |
| 10 | Predictive analytics | ▪ Guides decision making on positioning strategy, promotion strategy, and underwriting strategy, by exploiting patterns in historical and transactional data |

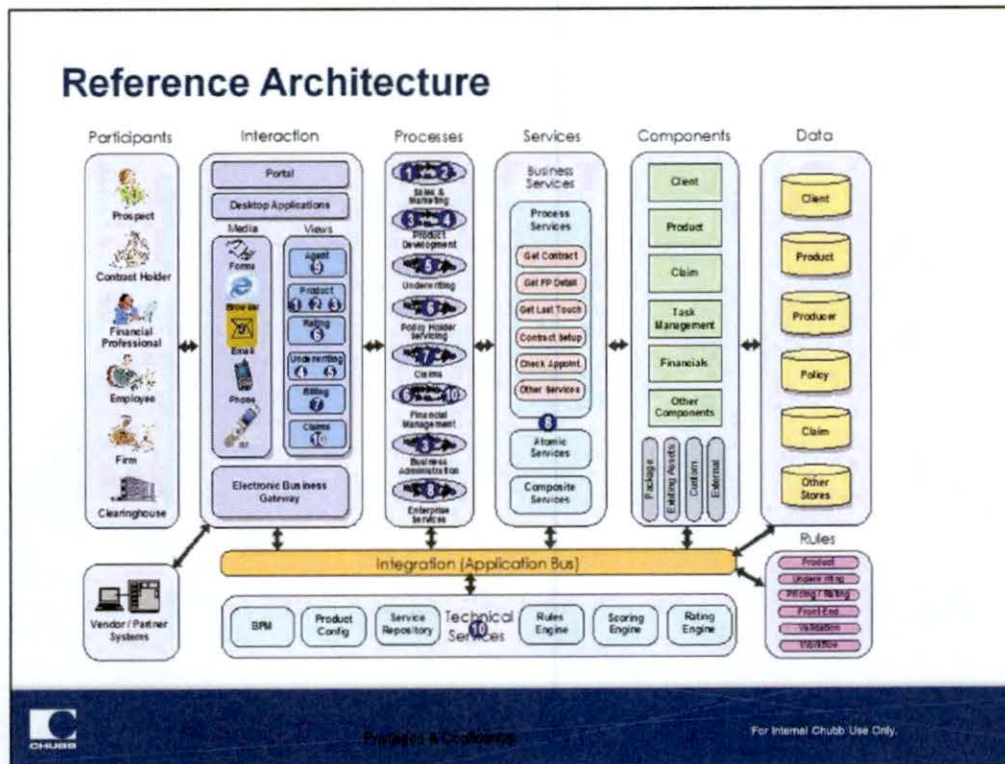


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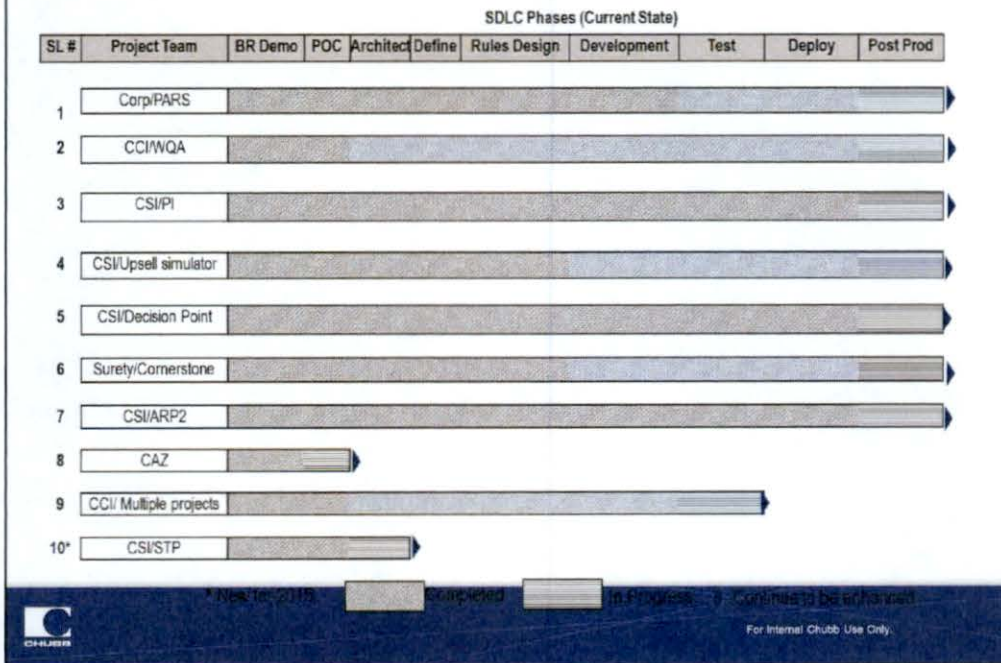
Rule Categorization to Business Capability Mapping



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2015 Business Rules Projects at Chubb (Active)



Current Challenges

- ▶ SDLC Clarity;
 - ▶ Business Rules Methodology artifacts do not "seamlessly" integrate into the current SDLC artifacts, phases and possible discipline defined roles.
 - ▶ DRA
 - ▶ Rules Harvesting/Analysis
 - ▶ Rules Design
- ▶ Roles and Training Challenges (capability and capacity issues)
 - ▶ Business Rules analysis and design being performed inconsistently across projects and by different disciplines
 - ▶ EA/DS has limited technical Blaze developer skills. Current training and mentoring plans should allow for sufficient experience in 6 -8 mos. In the meantime, project funding will be required to acquire Blaze proficient consultants.
 - ▶ Limited effort placed in the development and mentoring for rules analysis and design skill has created a capacity constraint. Is this because of role uncertainty. E.g. which discipline should be training for rules analysis and design? BPS,ASO,DSO?
 - ▶ Limited Staff trained in rules analysis
 - ▶ No formalized agreement for rules mentoring during artifact development
- ▶ Examples
 - ▶ Key dependency on one individual is slowing project progress
 - ▶ Lack of rules harvesting knowledge has caused
 - ▶ Project's size often under-estimated
 - ▶ Project specific rules to be created (often scenario based) leading to limited re-use and dual maintenance of the rules
 - ▶ Large amount of duplication
 - ▶ Rework once "SMEs" are involved
 - ▶ Constrained project pace due to lack of experience with rules analysis and blaze developers



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Case study: Profitability Indicator

Initiative

Project Overview:
Profitability indicator tool is essentially a statistical model to assist underwriters in predicting the future behavior of our current and potential customers. It allows underwriters to make an objective decision about the potential profitability of a risk based on internal and external factors

Objectives/Benefits:

- Move more of the right business into automated renewal
- Increase retention on best accounts and more readily identify potentially less profitable accounts
- Create greater efficiency for underwriters and continued efficiency for agents, who will have fewer policies to handle and fewer questions to address
- Expand USB's and SAFE's capacity for additional policies in other lines
- Easily update underwriting rules as business needs change

Current Phase: Completed

Implemented Models in Blaze:

- D&O and EPL models for Private, Not-for-Profit, Health Care
- EPL model for Public
- Fiduciary model
- Crime model
- Other lines

Current/Future Releases


	2014 In-flight & Upcoming PI Releases	Target Deployment Date
1	PI Interim data load	Q1 2014
2	PI Pending Renewals for Private Commercial Model Recalibration - Phase 2 (CCR2 & CCR3)	Q4 2013 (Continued in 2014)
4	PI CRIME Defined Book Run	Q2 2014
3	PI Private Commercial Model Recalibration	Q3 2014 (Planning underway)
5	PI Interim data load	Q3 2014
6	PI Tier / JAG changes (2014)	Q4 2014
	2015 Upcoming PI Releases	Target Deployment Date
7	PI Fiduciary New and Renewal Model Implementation	2015
8	NFP Model Recalibration	2015

Plus/Delta

- Plus**
 - The defined business benefit was realized
 - People understood the benefit of the project
 - Excellent service performance at the run-time
 - New model can be added fairly quickly (2 weeks)
 - Can be leveraged across projects
- Delta**
 - Lack of experienced Blaze resources
 - Limited debugging capabilities in Blaze Advisor
 - New models have to be coded manually

Technology

- Development Tools**
 - IBM Websphere Application Developer
 - Microsoft Visual Basic .NET (1.1 Framework)
 - Blaze Advisor
- Database**
 - Informix
- Clients**
 - Rating
 - Decision Point
 - Renewal Batch
 - 2015



Consider using this page if your major IT initiatives are enterprise-wide. Depending on audience dynamics, consider moving it to the IT Management Discussion section.

Repeat this page for every strategic initiative you wish to profile. If you choose this format, we recommend deleting page 13

Discussion Guidance:

This slide is a suggested template for the 1-page IT project summary. The discussion objective is to give a brief overview of major projects, so that all stakeholders are informed of major IT initiatives.

Instructions:

Describe major components, benefits, risks and timing of each project, and populate slide as appropriate

Descriptions should be self-explanatory, and can modified if other characteristics are more relevant.

Related CIO Executive Board Resources:

Project Execution Resource Center

This resource center maintains a broad collection of relevant cases, tools and other resources to assist members with their project execution challenges.

http://www.cio.executiveboard.com/CIO/1,1431,0-0-Protected_Display-103065,00-762,00-10312,00.html

Case study: Decision Point

Initiative	Current/Future Enhancements
<p>Project Overview: External facing application which provides on-line quoting capabilities to Chubb producers for small business (ex 500 or less employees, up to \$250 M revenues)</p> <p>Objectives/Benefits:</p> <ul style="list-style-type: none"> - Producer can obtain real-time quotes and a bind-able quote letter - Enhances producers' productivity and client service - Improved underwriters' responsiveness to producers - Allows Underwriters to concentrate on business that requires true underwriting expertise - It's devoted to new business: Profitable growth <p>Functionality:</p> <ul style="list-style-type: none"> - Determine eligibility and price the risk - Provide online quote letter including endorsement as embedded links - Completed application and other comprehensive documentation to support internal workflow <p>Current Phase: Completed</p> <p>Blaze Services:</p> <ul style="list-style-type: none"> - Eligibility: Validates if risk can be processed through Decision Point - Pricing: Calculates risk's premiums - Endorsement: Determines list of applicable endorsements and supporting fill-in data - Normalization: Transforms data during pdf upload process 	<ul style="list-style-type: none"> • STP Stream 1 - added the capability for agents to upload a completed eApplication into DecisionPoint. Eliminates double entry of information. Will accept Chubb apps, ACORD apps and certain competitor apps. • STP Future streams - Will provide the capability to automatically Rate, Book, Bind and Issue DecisionPoint submissions in CSI eXPRESS - for true Straight-Through Processing
Plus/Delta	Technology
<ul style="list-style-type: none"> • Plus <ul style="list-style-type: none"> • The defined business benefit was realized • Good teamwork under aggressive timeframe • Moves business logic out of the code • Services can be leveraged across projects • Decision modeling allowed for clear articulation of the underwriting thought process thus resulting in improved business rules requirements • Rule changes are implemented quickly when needed <ul style="list-style-type: none"> • EPL JAG - 7 business day SLA (350+ rules) • Delta 	<ul style="list-style-type: none"> • Development Tools <ul style="list-style-type: none"> • IBM Websphere Application Developer • Blaze Advisor • Methodologies for Business Rules <ul style="list-style-type: none"> • Decision Requirement Analysis • Rules Harvesting and documenting

Led: 11 underwrote Blaze resources in all 10 months
 Limited development capabilities in Blaze Advisor

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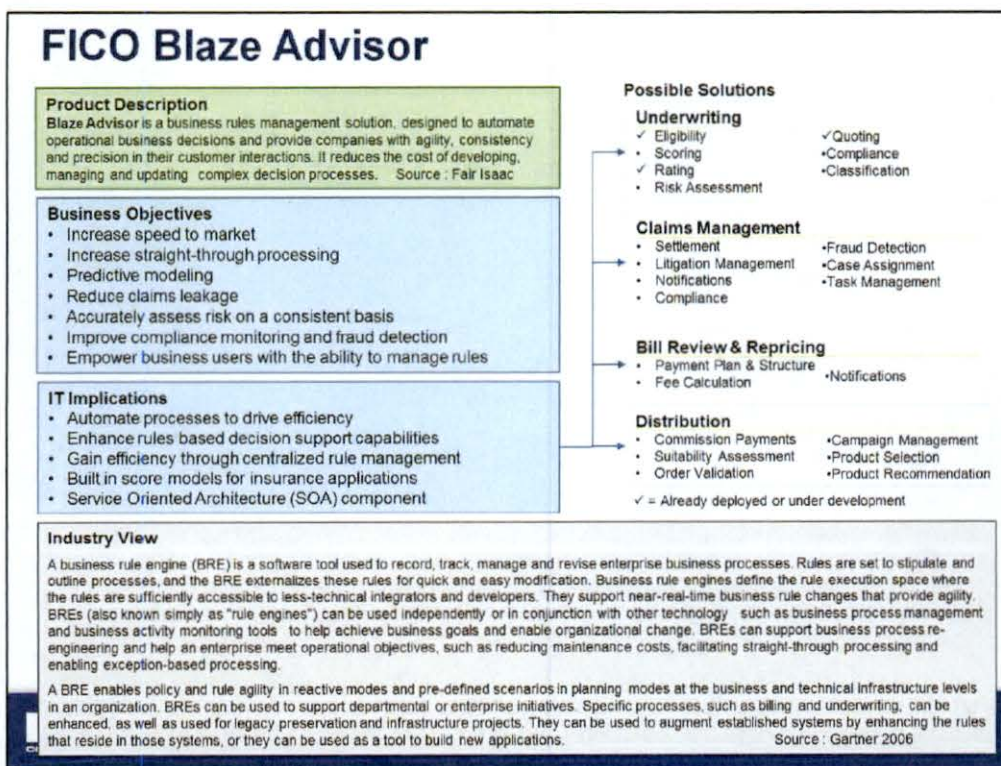
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Blaze Advisor Roadmap

